Amendments

Claims 1-9 were pending.

Claims 1-9 are amended.

Replacement sheets are provided for drawings 1-9.

A substitute specification is provided.

Thus, claims 1-9 are pending.

Discussion of Replacement and New Drawing Sheets

Replacement sheets 1-9 remedy the objections of the Nonfinal Office Action.

The amended sheets are labeled "REPLACEMENT SHEET."

Sheets 1-2 are amended to add numbering to items in the drawings.

Sheets 1-9 are amended to add a header and page numbering.

Sheet 10 of prior art is added to provide disclosure in the figures of the "computer display" of claim 1. Sheet 10 is labeled "NEW SHEET."

Sheets 11-14 are added to provide disclosure in the drawings of "each and every feature of the invention specified in the claims" 1-9 as required by 37 FCR 1.83(a). Sheets 11-14 are labeled "NEW SHEET."

Discussion of Substitute Specification

The Substitute Specification contains no new matter.

Pursuant to MPEP 714 (b)(3)(i), please replace the specification in the file wrapper with the enclosed Substitute Specification.

Pursuant to MPEP 714 (b)(3)(ii) a version of the Substitute

Specification is submitted.

Pursuant to MPEP 714 (b)(3)(ii) and 37 C.F.R. 1.125, the substitute specification remedies the objections to the specification, claims and the drawings, the rejection of claims 2-9 under 35 USC 112 - 1st paragraph, the rejections of claims 1-5 and 7-9 under 35 USC 112 - 2nd paragraph, the rejection of claims 1-9 under 35 USC 101 and the rejection of claims 1-9 under 35 U.S.C. 102(b).

Pursuant to MPEP 714 (b)(3)(iii) a Substitute Specification is submitted that is marked up to show all changes relative to the previous version of the specification.

Paragraph 3 is deleted and added as new paragraph 10.

Paragraph 4 is deleted.

In paragraph 5, the first two sentences are deleted and added to paragraph 34.

Paragraph 7 is deleted and added as new paragraph 11.

Paragraphs 8 and 9 are added as common, well-known matter.

The references to embodiments as "preferred" is deleted in paragraphs 12, 29 and 33 and in the title of the "detailed description section."

Stylistic changes are made to the brief description of the drawings in paragraphs 13-21.

Paragraphs 22-26 are added as brief descriptions of new figures 10-14.

Paragraph 27 is added as common, well-known matter.

Paragraph 28 is added based on matter from paragraph 31.

Paragraph 30 is amended to add matter from the amended claim 2 and unamended claim 5.

Paragraph 32-33 are added based on matter from figures 1-2.

Paragraph 34 is amended to add matter from the unamended claim 3.

Paragraph 35 is amended to add matter from the unamended claims 4 and 6-8.

In paragraph 36, stylistic changes are made.

Paragraphs 45-55 are added as prior art written description support for the prior art drawing 10.

Paragraphs 56-63 are added as a written description support for the new figures 11-14, the matter of which was disclosed in the original filing and there contains no new matter.

Paragraphs 64-66 are added as common, well-known matter to constitute a conclusion section.

Discussion of objections to the specification

In response to the objection of a two paragraph abstract, the abstract is amended to merge the two paragraphs into one paragraph. Other modifications are made to the abstract to improve readability.

In response to the objection to the incorporation by reference in the "Background of the Invention" the incorporation by reference between paragraphs 3 and 4 is deleted.

Discussion of objections to the claims

In response to the objection to the dependency of the claims 1-9 pursuant to MPEP 608.01, claims 2-8 are amended to depend from claim 1, and claim 9 is amended to include matter from the former unamended claim 1 in independent claim form.

In response to the objection to the lack of antecedent basis in claims 1-5 and 7-9, all antecedent basis is resolved by the current amendments.

Claims 1-9 are also amended to include annotation of aspects in the claims that are numbered in the figures.

Discussion of objections to the figures

In response to the objection of the drawing not showing every feature of the claim under 37 CFR 1.83(a), drawing sheets 10-14 are added.

Discussion of 35 USC 112 - 1st paragraph rejection

Claims 2-9 were rejected under the written description requirement of 35 USC 112 - 1st paragraph. In response to this objection, the specification is amended in paragraphs 33, 36-37 and 47 to provide support for claims 2-9. In accordance with 35 CFR 1.121(f) which requires that "No amendment may introduce new matter into the disclosure of an application" the matter of paragraphs 33, 36-37 and 47 existed in the application at the time of filing, so no new matter was introduced into the application by these amendments in accordance with 35 CFR 1.121(f). Applicant respectfully requests withdrawal of the 35 USC 112 - 1st paragraph rejection.

Discussion of 35 USC 112 - 2nd paragraph rejection

Claims 1-5 and 8-9 were rejected under 35 USC 112 - 2nd paragraph.

The Office Action identifies the following phrases in the claim as

being particularly vague: "menus or computer platform programs", "link maybe represented", "it maybe represented", "licensed or proprietary computer based platform", "onboard systems or portable media", "managed or operated", "manual or other", "computerized systems or a networked computer", "equipment maintenance or other databases."

In response, claims 1-5 and 8-9 are modified extensively to eliminate vagueness. Applicant respectfully requests withdrawal of the 35 USC 112 – 2nd paragraph rejection.

Discussion of 35 USC 101 rejection

Claims 1-9 were rejected under 35 USC 101 as directed to non-statutory subject matter "with no useful result."

In response, the claims are amended to require "computer accessible medium" which in itself removes the claims from the realm of the purely abstract. A computer accessible medium is a tangible medium and an operable medium.

Beyond the amendment to require "computer accessible medium" the claims also perform a tangible result. The amended independent claims require "display" of "construction project information on a computer display to users" which is very tangible. Thus, the amendments satisfy the 35 USC 101 rejection. Applicant respectfully requests withdrawal of the 35 USC 101 rejection.

Discussion of 35 USC 102(b) rejection

Claims 1-9 were rejected under 35 U.S.C. 102(b) as anticipated by Microsoft Internet Explorer Version 6.0.2800.1106.xpsp1.020828-

192oCO.

In response, the independent claim #1 and #9 are amended to require that the "project item" is a "construction industry project item." "Construction industry" is not disclosed in the reference of Microsoft Internet Explorer, therefore, claims 1 and 9 and all of the dependent claims 2-8 are novel over the Microsoft Internet Explorer reference. Thus, applicant respectfully requests withdrawal of the 35 USC 102(b) rejection.

Conclusion

The pending amended claims 1-9 are all allowable because the specification and claims have been amended in response to the objections and rejections in the Office Action dated Dec. 11, 2007. Thus, applicant requests a Notice of Allowance for this patent application.

If any issues remain that prevent the dispatch of a notice of allowance, Applicant requests that the Examiner call the undersigned attorney.

Respectfully Submitted,

Dated: February 8, 2007   By: Michael G. Smith
                                       45,368
                                       Ivey, Smith and Ramirez
                                       1250 Connecticut Ave NW,
                                       #200
                                       Washington, D.C. 20036-2603

                                       (202) 595-1444 x2

Marked Up Version Of The Pending Claims under 37 C.F.R.
1.121(c)(1)(ii):

In accordance with 37 C.F.R. 1.121(c)(1)(ii), the Applicant
submits the following marked up version only for claims being changed
by the current amendment, wherein the markings are shown by
strikethrough (for deleted matter) and/or underlining (for added
matter):

CLAIMS

I claim:

10.   (currently amended)A computer-accessible medium comprising at
least one m[[M]]enu[[s]] (1104 and 1106)~~or computer platform
programs are~~ [[i]]embedded into computer based project
representations(1102), the at least one menu (1104 and 1106) being
operable ~~which are used~~ to display construction project information on
a computer display (1022) to users, which facilitates [[the
]]construction, repair or maintenance of ~~one or more~~ at least one
construction project item[[s]] (1108, 1110, 1112 and 1114) represented
within a[[the]] drawing (1102) and connected through [[the]]a
graphical object interface (1104) that represents an integration of more
than one relational ~~or non-relational~~ link (1116 and 1118). ~~called a
graphic object interface. (GOI)~~

11.   (currently amended)The computer-accessible medium of claim 1,

wherein t[[T]]he computer based project representations (1102) of the ~~graphic object interface (GOI)~~ relational links (1116 and 1118) are[[may be]] represented by visual~~visible or invisible~~ attributes, ~~and if the attribute is visible,~~ visual attributes being~~it may be~~ represented by any color, number or other informational symbol.

12.   (currently amended)The computer-accessible medium of claim 1, wherein t[[T]]he computer based project representation (1102) further comprises a computer based project representation (1302)~~managed may be~~ represented using a licensed and[[or]] proprietary computer based platform in at least 2 [[D]]dimensions~~al or 3-dimensional format~~s, including at least one 2 [[D]]dimensional~~or 3-dimensional~~ graphic object interface[[GOI]] format[[s]] with [[the]] ~~ability to have~~ a 2 [[D]]dimensional link within a 3 [[D]]dimensional [[D]]drawing and a 3 [[D]]dimensional link ~~can be~~[[i]]embedded into a 2 dimensional drawing.

13.   (currently amended)The computer-accessible medium of claim 1, wherein t[[T]]he graphic object interface [[(GOI)]] directly links a variety of information items including~~such as but not limited to~~ menus, programs, databases, Internet links, video, any other multimedia[[,]] file[[r]]s (1402 and 1404) with other project related links to other informational items in a relational ~~or non-relational~~ manner.

14.   (currently amended)The computer-accessible medium of claim 1, wherein t[[T]]he graphical object interface (1104) is~~GOI project management invention when~~ combined with ~~computerized platforms~~

such as those used in~~at least one of a ~~DVD, vehicle onboard computer systems, or any other~~portable media (1406) that provides a facility would allow the user to troubleshoot problems within the graphical object interface (1104) being managed or operated without a printed manual or other associated support material.

15. (currently amended)The computer-accessible medium of claim 1, wherein the at least one[[A]] menu (1104 and 1106)further comprises a database (1408) incorporated into the menu thatit will provides for automated maintenance to be preformed by [[the]]an owner of [[the]]property and alternately when connected to a network, is operable to[[can]] be printed from anywhere in the [[program]]menus to include all [[of the]]pertinent information for [[the]]equipment to be maintained.

16. (currently amended)The computer-accessible medium of claim 1, wherein [[E]]each construction project item (1108, 1110, 1112 and 1114) in the graphic object interface (1104 and 1106) further comprises(GOI) will be a project management module having awith its own menu system that is independently operable to operate independent of a menu if so desired.

17. (currently amended)The computer-accessible medium of claim 1, wherein the at least one menu (1104 and 1106) is operable to be performed byThe present invention will be able to work off an individual computer[[ized]] system (1002), or a networked computer from a centralized location directly hooked to a piece of equipment.

18.   (currently amended)<u>A computer-accessible medium comprising </u>a computer program embedded into computer based project representations<u> (1102)</u>, the computer program being operable to <u>display construction project information on a computer display (1022) to users, which</u> facilitate<u>s</u> the construction, repair or maintenance of one or more construction industry project items <u>(1108, 1110, 1112 and 1114)</u> represented within a drawing (1102) and connected through a graphical object interface <u>(1104 and 1106) </u>that represents an integration of more than one relational link, <u>the medium further comprising </u>URL's operable~~may be contained in the present invention which can be used~~ to link to the Internet to perform remote operations or run updates for the computer program, equipment maintenance or other databases ~~used to maintain or item that the computer program was designed to serve~~.

METHOD FOR INTEGRATING DRAWINGS AND SUPPORTING DOCUMENTS USING GRAPHIC OBJECT INTERFACE

TECHNICAL FIELD

[0001]   The present invention relates to the field Computer Programs and the use of multi-spatial point to point links known as a Graphic Object Interface [GOI] within a computer program platform which manages drawings, schematics or plans, and supporting documents in a relational or nonrelational manner for total computer based management of any production project.

BACKGROUND OF THE INVENTION

[0002]   Several computer data base programs have appeared in recent years which allow for horizontal or linear management of data or graphics. However, none of the present computer programs allow for multi-level global access of information from one menu, blue print, graphic, or data base etc. to another without the benefit of returning to or going through a main menu.

[0003]   The present invention allows for access to any area of information in the platform from the computer screen by way of a Graphic Object Interface.

The entire disclosures of the aforementioned patents are incorporated by reference herein as computer program platforms.

[0004]   1. Adobe Acrobat--No claims are made as to the use of Adobe Platform patents as the platform and related patents are referenced the

present invention and used by the inventor under a lawful product license.

[0005]   This Adobe Acrobat platform is currently the most notable of all data and graphic management programs. Currently the Adobe Acrobat platform is the most suitable computer program for running the present invention. However, unlike the present invention, Adobe Acrobat only allows a horizontal or vertical access to other levels or menus of information and often requires the user to go through a main menu listing commonly shown at the left side of the screen to access the information.

[0006]   2. U.S. Pat. No. 4,861,041 . . . Lets list the patents on the disclosure we identified through the search as being in the area of technology but not close.

[0007]   It is a feature of this invention that the computer user can access information contained anywhere in the management program without having to exit into, or go through, another area within the program first.

[0008]   The above-mentioned shortcomings, disadvantages and problems are addressed herein, which will be understood by reading and studying the following specification.

[0009]   Apparatus, systems, and methods of varying scope are described herein. In addition to the aspects and advantages described in this summary, further aspects and advantages will become apparent

by reference to the drawings and by reading the detailed description that follows.

BRIEF DESCRIPTION OF THE INVENTION

[0010]   The present invention allows for access to any area of information in the platform from the computer screen by way of a Graphic Object Interface.

[0011]   It is a feature of this invention that the computer user can access information contained anywhere in the management program without having to exit into, or go through, another area within the program first.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012]   Preferred eEmbodiments of the invention are described below with reference to the following accompanying drawings.

[0013]   FIG. 1[[--R]] represents a generic flow chart depicting how job plan sheets, specifications[[. S]], spreadsheet data, and plans are inter-connected through linked GOI modules[[.]];

[0014]   FIG. 2[[--R]] represents a generic flow chart of plans and specifications related GOI module and the related inter-linked data of the GOI module[[.]];

[0015]   FIG. 3[[--R]] represents a generic view of a startup screen when program is loaded and the options available;

[0016]   FIG. 4[[--R]] represents a generic view of a typical GOI screen menu with data links and highlighted bookmarks to data[[.]];

[0017]   FIG. 5[[--R]] represents a generic view of an equipment schedule representation for components to be installed as accessed from GOI link (A) in FIG. 4[[.]];

[0018]   FIG. 6[[--R]] represents a view of location drawings (plans and section representations) for items to be installed as accessed from GOI link (B) shown in FIG. 4[[.]];

[0019]   FIG. 7[[--R]] represents a view of specifications of that component as accessed from GOI link (C) shown in FIG. 4[[.]];

[0020]   FIG. 8[[--]] is a view of a catalog representation of the actual items to be installed and the specific location as accessed from GOI link (D) shown in FIG. 4[[.]];and

[0021]   FIG. 9[[--]] is a view of a Maintenance & Operation Manual[[. L]] listing all of the parts and the basic trouble-shooting guide of the item as accessed from GOI link (E) shown in FIG. 4[[.]];

[0022]   FIG. 10 is a block diagram of a hardware and operating environment in which different embodiments can be practiced;

[0023]   FIG. 11 is a block diagram of a system 1100 of menu(s) embedded into computer based project representations;

[0024]   FIG. 12 is a block diagram of a system 1200 of menu(s) embedded into computer based project representations having visual

relational links;

[0025]   FIG. 13 is a block diagram of a system 1300 of menu(s) embedded into computer based project representations being a licensed and proprietary computer based platform; and

[0026]   FIG. 14 is a block diagram of a system 1400 of menu(s) embedded into computer based project representations and also including multimedia files, portable media and database(s).

DETAILED DESCRIPTION OF ~~THE PREFERED~~ EMBODIMENTS

[0027]   In the following detailed description, reference is made to the accompanying drawings that form a part hereof, and in which is shown by way of illustration specific embodiments which may be practiced. These embodiments are described in sufficient detail to enable those skilled in the art to practice the embodiments, and it is to be understood that other embodiments may be utilized and that logical, mechanical, electrical and other changes may be made without departing from the scope of the embodiments. The following detailed description is, therefore, not to be taken in a limiting sense.

[0028]   FIG. 1 is block diagram of an overview of a system 100 that creates a spider web of interrelated links within a single project to allow the project supervisor or owner to effectively manage all aspects of the project from a desktop or laptop computer.

[0029]   Referring in greater detail to the drawings, a ~~presently~~

~~preferred~~ form of the apparatus utilizes the integration of computerized Graphic Objects as linked through a Graphic Object Interface (GOI) with associated database programs in the total management of any representation of the project being managed. This includes but is not limited to partial or complete finished construction or assembly management for all commercial or personal project applications such as construction trades, automotive assembly, and equipment manufacturing.

[0030]   Graphic Objects are comprised of a graphic representation or partial representation of an object related to the project to be constructed, and may be in a computerized format or not. If the information to be used is non-computerized, then [[it]]<u>the information</u> is converted to a graphic form through scanning, digital photography, or movies into one of any commonly used consumer computer graphic formats. Such formats include but are not limited to computer system compatible platforms such JPEG, MPEG, DVD, GIF, BMP, PCX, TIFF, TIFF-M and PNG. <u>The computer based project representations of the relational link are represented by attributes, visual attributes being represented by any color, number or other informational symbol. Graphic object interface project management combined with computerized platforms such as those used in DVD or any other portable media that provides a facility to troubleshoot problems within the graphical object interface being managed or operated without a printed manual or other associated support material.</u>

[0031]   Computerized information management program platforms

utilized with this invention and interconnected through GOI's[[S]], integrate single or multiple consumer or vendor information type programs which contain the data required for installation, maintenance, operation, and repair of part or all of the project being managed. Single or multiple databases are organized into modules containing a single Graphic Object specific to the overall project being managed. The GOI may contain more than one module, which constitutes a single graphic object within the graphic interface. The database may be specifically linked through the GOI to one or more modules within the project or the entire project. The effect of the connection of the database(s) to a graphic object representation is to create a spider web of interrelated links (FIG. 1, FIG. 2) within a single project to allow the project supervisor or owner to effectively manage all aspects of the project from a desktop or laptop computer.

[0032] More specifically, system 100 includes plans GOI 102, that is operably coupled to specifications GOI 104, schedule 106, plan location 108, specification 110, submittal 112, manual 114, diagnostics 116 details 118 and section 120.

[0033] The flowchart of FIG. 2 includes the actions of starting the program 202, choosing a section 204, choosing a plan 206, choosing a specification 208, choosing a GOI and choosing a GOI 212 such as specifications GOI 104, schedule 106, plan location 108, specification 110, submittal 112, manual 114, diagnostics 116 details 118 and section 120.

[0034]   In some embodiments, the project is represented using a licensed or proprietary computer based platform in 2 dimensional or 3 dimensional formats. The format can include 2 dimensional or 3 dimensional graphic object interface formats with an ability to have a 2 dimensional link within a 3 dimensional drawing and a 3 dimensional link can be embedded into a 2 dimensional drawing.

[0035]   In one~~It is a preferred~~ embodiment of this apparatus, ~~that~~ internet web links, diagnostic and repair programs, database maintenance scheduling program, and/or adjusting maintenance programs may also be linked via the GOI in the same manner as the database(s) are linked above to a specific graphic object representation by utilizing any computerized network configuration. In some embodiments, the graphic object interface directly links a variety of information items such as but not limited to menus, programs, databases, Internet links, video, any other multimedia files with other project related links to other informational items in a relational or non-relational manner. In some embodiments, the menu further comprises a database incorporated into the menu that provides automated maintenance performed by an owner of property and alternately when connected to a network, is operable to be printed from anywhere in the menus to include all pertinent information for equipment to be maintained. In some embodiments, each construction project item in the graphic object interface further comprises a project management module having a menu system that is independently operable. In some embodiments, the menu is operable to be performed by an individual

computer system and a networked computer.

[0036]   Adobe Acrobat platform is currently the most notable of all data and graphic management programs. Currently the Adobe Acrobat platform is the most suitable computer program for running the present invention. For illustrative purposes Adobe Acrobat, Microsoft Word and Excel, database management programs are used with TIF graphic object representations that are converted to PDF files. The start of the management program generates a screen with one or more GOI's. (FIG. 3) Upon accessing one section through the GOI, the user selects desired bookmark on left hand side. (FIG. 4) The selection of bookmark directs user to the desired module containing the required graphic object representation menu[[.]] (FIG. 5 - FIG. 9). The graphic object representation for the attached application is the Air handler. By [[C]]clicking return to AH-1 Menu, a menu appears. This menu displays the associated GOI links positioned on the menu relevant to a graphic object that [[it]]the menu represents. ~~Here is the explanation of those~~ GOI Links (FIG. 4) are described as follows:[[.]]

[0037]   (A)--Link to "Schedule" of events for installation of air handler unit

[0038]   (B)--Link to "Plans" related to the location and placement of air handler unit

[0039]   (C)--Link to "Specifications" data for the air handler unit

[0040]   (D)--Link to "Submittal" of catalogue information on air

handler unit

[0041]   (E)--Link to "Operation & Maintenance Manual" data for air
handler unit

[0042]   (F)--Link to "Details" containing other related data specific to
air handler unit.

[0043]   (G)--Link to "Section" information on the individual
components of the air handler unit.

[0044]   (H) Link to Vendor Supplied Diagnostic Program or URL Link
for this specific equipment to check setup and functioning of air
handler unit.

[0045]   In some embodiments, a computer program is embedded into
computer based project representations. The computer program is
operable to facilitate the construction, repair or maintenance of one or
more construction project items represented within a drawing and
connected through a graphical object interface that represents an
integration of more than one relational link. The medium further
comprises medium further comprises URL's that are operable to link to
the Internet to perform remote operations or run updates for the
computer program, or run updates on an equipment maintenance or
other database.

[0046]   FIG. 10 is a block diagram of a hardware and operating
environment 1000 in which different embodiments can be practiced.
The description of FIG. 10 provides an overview of computer hardware

and a suitable computing environment in conjunction with which some embodiments can be implemented. Embodiments are described in terms of a computer executing computer-executable instructions. However, some embodiments can be implemented entirely in computer hardware in which the computer-executable instructions are implemented in read-only memory. Some embodiments can also be implemented in client/server computing environments where remote devices that perform tasks are linked through a communications network. Program modules can be located in both local and remote memory storage devices in a distributed computing environment.

[0047]   Computer 1002 includes a processor 1004, commercially available from Intel, Motorola, Cyrix and others. Computer 1002 also includes random-access memory (RAM) 1006, read-only memory (ROM) 1008, and one or more mass storage devices 1010, and a system bus 1012, that operatively couples various system components to the processing unit 1004. The memory 1006, 1008, and mass storage devices, 1010, are types of computer-accessible media. Mass storage devices 1010 are more specifically types of nonvolatile computer-accessible media and can include one or more hard disk drives, floppy disk drives, optical disk drives, and tape cartridge drives. The processor 1004 executes computer programs stored on the computer-accessible media.

[0048]   Computer 1002 can be communicatively connected to the Internet 1014 via a communication device 1016. Internet 1014 connectivity is well known within the art. In one embodiment, a

communication device 1016 is a modem that responds to communication drivers to connect to the Internet via what is known in the art as a "dial-up connection." In another embodiment, a communication device 1016 is an Ethernet® or similar hardware network card connected to a local-area network (LAN) that itself is connected to the Internet via what is known in the art as a "direct connection" (e.g., T1 line, etc.).

[0049]   A user enters commands and information into the computer 1002 through input devices such as a keyboard 1018 or a pointing device 1020. The keyboard 1018 permits entry of textual information into computer 1002, as known within the art, and embodiments are not limited to any particular type of keyboard. Pointing device 1020 permits the control of the screen pointer provided by a graphical user interface (GUI) of operating systems such as versions of Microsoft Windows®. Embodiments are not limited to any particular pointing device 1020. Such pointing devices include mice, touch pads, trackballs, remote controls and point sticks. Other input devices (not shown) can include a microphone, joystick, game pad, satellite dish, scanner, or the like.

[0050]   In some embodiments, computer 1002 is operatively coupled to a display device 1022. Display device 1022 is connected to the system bus 1012. Display device 1022 permits the display of information, including computer, video and other information, for viewing by a user of the computer. Embodiments are not limited to any particular display device 1022. Such display devices include cathode

ray tube (CRT) displays (monitors), as well as flat panel displays such as liquid crystal displays (LCD's). In addition to a monitor, computers typically include other peripheral input/output devices such as printers (not shown). Speakers 1024 and 1026 provide audio output of signals. Speakers 1024 and 1026 are also connected to the system bus 1012.

[0051]   Computer 1002 also includes an operating system (not shown) that is stored on the computer-accessible media RAM 1006, ROM 1008, and mass storage device 1010, and is executed by the processor 1004. Examples of operating systems include Microsoft Windows®, Apple MacOS®, Linux®, UNIX®. Examples are not limited to any particular operating system, however, and the construction and use of such operating systems are well known within the art.

[0052]   Embodiments of computer 1002 are not limited to any type of computer 1002. In varying embodiments, computer 1002 comprises a PC-compatible computer, a MacOS®-compatible computer, a Linux®-compatible computer, or a UNIX®-compatible computer. The construction and operation of such computers are well known within the art.

[0053]   Computer 1002 can be operated using at least one operating system to provide a graphical user interface (GUI) including a user-controllable pointer. Computer 1002 can have at least one web browser application program executing within at least one operating system, to permit users of computer 1002 to access an intranet, extranet or Internet world-wide-web pages as addressed by Universal Resource

Locator (URL) addresses. Examples of browser application programs include Netscape Navigator® and Microsoft Internet Explorer®.

[0054] The computer 1002 can operate in a networked environment using logical connections to one or more remote computers, such as remote computer 1028. These logical connections are achieved by a communication device coupled to, or a part of, the computer 1002. Embodiments are not limited to a particular type of communications device. The remote computer 1028 can be another computer, a server, a router, a network PC, a client, a peer device or other common network node. The logical connections depicted in FIG. 10 include a local-area network (LAN) 1030 and a wide-area network (WAN) 1032. Such networking environments are commonplace in offices, enterprise-wide computer networks, intranets, extranets and the Internet.

[0055] When used in a LAN-networking environment, the computer 1002 and remote computer 1028 are connected to the local network 1030 through network interfaces or adapters 1034, which is one type of communications device 1016. Remote computer 1028 also includes a network device 1036. When used in a conventional WAN-networking environment, the computer 1002 and remote computer 1028 communicate with a WAN 1032 through modems (not shown). The modem, which can be internal or external, is connected to the system bus 1012. In a networked environment, program modules depicted relative to the computer 1002, or portions thereof, can be stored in the remote computer 1028.

[0056]   Computer 1002 also includes power supply 1038. Each power supply can be a battery.

[0057]   FIG. 11 is a block diagram of a system 1100 of menu(s) embedded into computer based project representations. System 1100 includes at least one menu (1104 and 1106) that is embedded into computer based project representations (1102). The at least one menu (1104 and 1106) is operable to display construction project information on a computer display (1022) to users. The display facilitates construction, repair or maintenance of at least one construction project item (1108, 1110, 1112 and 1114) represented within a drawing (1102) and connected through a graphical object interface (1104) that represents an integration of more than one relational link (1116 and 1118).

[0058]   FIG. 12 is a block diagram of a system 1200 of menu(s) embedded into computer based project representations having visual relational links. In system 1200, the computer based project representations (1102) of the relational links (1116 and 1118) are represented by visual attributes. The visual attributes are represented by any color, number or other informational symbol.

[0059]   FIG. 13 is a block diagram of a system 1300 of menu(s) embedded into computer based project representations being a licensed and proprietary computer based platform. In system 1300, the wherein the computer based project representation (1102) is a computer based project representation (1302) represented using a licensed and

proprietary computer based platform in at least 2 dimensions. The 2 dimensions include at least one 2 dimensional graphic object interface format with a 2 dimensional link within a 3 dimensional drawing and a 3 dimensional link embedded into a 2 dimensional drawing.

[0060]   FIG. 14 is a block diagram of a system 1400 of menu(s) embedded into computer based project representations and also including multimedia files, portable media and database(s). In system 1400, the graphic object interface directly links a variety of information items including menus, programs, databases, Internet links, video, any other multimedia files (1402 and 1404) with other project related links to other informational items in a relational manner. In system 1400, the graphical object interface (1104) is combined with at least one of a portable media (1406) that provides a facility to troubleshoot problems within the graphical object interface (1104) without a printed manual or other associated support material.

[0061]   In system 1400, the at least one menu (1104 and 1106) includes a database (1408) incorporated into the menu that provides for automated maintenance to be preformed by an owner of property and alternately when connected to a network, is operable to be printed from anywhere in the menus to include all pertinent information for equipment to be maintained.

[0062]   In system 1400, each construction project item (1108, 1110, 1112 and 1114) in the graphic object interface (1104 and 1106) further comprises a project management module having a menu system that is

independently operable.

[0063]   In system 1400, the at least one menu (1104 and 1106) is operable to be performed by an individual computer system (1002).

Conclusion

[0064]   Although specific embodiments are illustrated and described herein, it will be appreciated by those of ordinary skill in the art that any arrangement which is calculated to achieve the same purpose may be substituted for the specific embodiments shown. This application is intended to cover any adaptations or variations.

[0065]   In particular, one of skill in the art will readily appreciate that the names are not intended to limit embodiments. Furthermore, additional methods and apparatus can be added to the components, functions can be rearranged among the components, and new components to correspond to future enhancements and physical devices used in embodiments can be introduced without departing from the scope of embodiments.

[0066]   The terminology used in this application is meant to include all environments and alternate technologies which provide the same functionality as described herein.

METHOD FOR INTEGRATING DRAWINGS AND SUPPORTING DOCUMENTS USING GRAPHIC OBJECT INTERFACE

ABSTRACT OF THE DISCLOSURE

[[The]]A [[G]]graphic [[O]]object [[I]]interface (GOI) integrates supporting documents with [[the]]drawings and[[&]] specifications that they represent. [[This i]]Integration of often bulky and cumbersome information into a single system computer [[run]] program allows all individuals associated with the maintenance upkeep and[[&]] troubleshooting of the equipment, building or other managed items to be managed to have a comprehensive source of information available to the individuals.[[m as well as]] Integration also reduces[[ing]] the overall need for paper products and storage space. [[It is a]]A self-booting system that runs on a MAC or PC with [[S]]software contained on the disk providesso it will be independence[[t]] from any computer operating system and[[&]] software previously installed on the host computer, therefore provid[[insur]]ing compatibility with any future operating systems and[[&]] software, but which also may be started from licensed software installed on the user's computer.